Missouri Department of Conservation
Duck Season and Zoning Workshop

Duck season zoning workshops have been scheduled for March 2001. This is not intended to be a forum for debate. All views about the "best" season or zones are legitimate and reflect different hunting experience, tradition, species preferences, and wetland habitats hunted. Instead this is an opportunity to share the information used to develop hunting season recommendations and as an opportunity for hunters to provide input into the recommendation for zoning and or split seasons during 2001-2005.

1) 15 minutes: Please complete surveys regarding:
   - Your personal preference about duck seasons and zoning
   - Your use and opinion about motion-wing decoys. We do not intend to spend much time on the motion-wing-decoy issue; however, we want to provide a chance for you to provide input. No change in regulations is planned at this time.

2) 45 minutes: We will provide information about migrations, populations, weather, harvest and band recoveries, waterfowl hunters' opinions about hunting dates and zones, and sources of mallards harvested in Missouri. Canada goose status and season rationale also will be presented.

3) 45 minutes: Small groups will be asked to discuss their collective preferences for seasons and zones and develop a consensus recommendation. Each small group should:

4)
   - Select a group leader
   - Select someone to record the substance of your discussions and to complete the small group survey
   - Review migration, weather, and harvest data as well as group members' opinions about seasons.
   - Develop a consensus recommendation about 2001-2005 zoning / split seasons

5) 15+ minutes: Selected small groups will report their recommendation to the workshop attendees.

6) Additional questions and discussion

Duck Seasons and Zoning in Missouri

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Waterfowl hunters in Missouri face widely varied habitats distributed along a 400-mile gradient (NW-SE) from riparian areas used primarily by migrant ducks in Northwest Missouri to the deltaic habitats presented by the Mississippi Alluvial Valley where late fall and wintering waterfowl predominate. Duck hunting styles vary across this gradient and among hunter preferences for different species, which range from early-season wood ducks to winter mallard hunting. Early-season hunting on creeks, ponds, and managed shallow marshes and green-tree reservoirs on public and private lands is in contrast to late season hunting oriented towards rivers, reservoirs, and Southeast Missouri overflow lands.

Among years, hunting opportunity and hunter success are quite variable in mid-latitude states like Missouri. Summer weather patterns determine wetland status and food conditions going into the fall. Considerable differences in fall weather affect migration timing, fall and winter rainfall determine the extent of bottomland flooding, and variable winter weather results in considerable differences in timing of freeze-up. These variables have substantial effects on the timing and magnitude of duck use and corresponding availability to hunters. Season timing determines which hunting styles are most accommodated. Regardless of season length, Missouri duck season dates are timed to provide the greatest opportunity for mallards, the predominant choice among duck hunters. Zoning and longer seasons allow for a greater range of hunting styles and more opportunity for species other than mallards (e.g. wood ducks and early migrant dabblers).

A split duck season was first employed in 1976 and zoning for the first time in 1977 to provide a greater diversity in season timing for the wide range in hunter preferences (Table 1). During 1977-79, Missouri was separated into 2 zones; seasons in the North Zone were timed about 3 weeks earlier than in the South Zone (southern third of Missouri, Figure 1). Two season segments (a split season) in each of 2 zones was the duck season structure during 1980-85. During 1980-82, a 5-day early segment in the North Zone and a 5-day late split in the South complemented a statewide season of 45 days. An early segment of 3-5 days was retained in the North Zone during 1983-85 (40 to 50-day seasons), while the late segment in the South Zone was expanded to 10-18 days. North Zone seasons during 1986-90 were 30-40 consecutive days, while South Zone seasons included an early segment of 16-23 days and a late segment of 13-17 days. Beginning in 1991, Missouri was divided into North, South, and Middle zones encompassing the northern half, southern fourth, and remainder of the state, respectively; this structure was retained for 30 to 50-day seasons, 1991-95 and during 50-60 day seasons, 1996-2000.

Duck hunters in Missouri have seen extremes of every sort during the last decade. After short, 30-day seasons during 1988-93, seasons progressively increased in length to 60 days by 1997, the longest seasons since 1958. Duck populations increased from record lows in the late ‘80s to unprecedented fall flights by 1998 as wetland habitat conditions improved and then were sustained for several years. Weather conditions ranged from extremely severe to summer-like. The Halloween Storm of 1991 with temperatures near 0°F for the first week of November or the “grand passage” during 2-4 November 1995 were in sharp contrast to the mild December weather and delayed migrations during 1998 and 1999. Weather and migrations during the 2000 season

were reminders that winter still can play an important role in Missouri duck seasons.

Long seasons, extended hunting opportunity, mild weather, and unusual migrations were the bases for hunters' questions about season timing and zone boundaries during recent years. Concerns about duck season dates have always been sources of contention among hunters who hunt in different regions of the state, for different species, and in different habitats. This is why, beginning in 1976, we began to use zones and/or split seasons to provide different hunting options for areas with substantially different habitat types and hunting preferences. Zone boundaries were adjusted in 1980, 1986, and 1991 to separate early from late season hunting preferences for hunters who hunted shallow wetlands or flooded timber from those who hunted rivers, overflow areas, or reservoirs.

Annual proposals to change duck zones by one or more states prompted the U.S. Fish and Wildlife Service to standardize zoning criteria beginning with the 1991 season. Zones selected in 1991 had to be retained 5 years, 1991-95 and again during 1996-2000. Only 3 choices other than a statewide season were available: 1) a statewide season split into 3 segments, 2) two zones with a split season in either or both zones, or 3) three zones with continuous seasons in each zone. These same zoning / split season options are available for 2001-2005.

An evaluation of the initial 5-year period of three zones (1991-95) indicated that changes in numbers of ducks harvested, the distribution of harvest among regions and species, and hunters' attitudes were not attributed to the effects of zoning and split seasons. Also, there was no prevailing desire among hunters to change zones; thus, continuation of 3 duck zones was approved by the Conservation Commission in May 1996 for duck seasons through 2000. We are conducting waterfowl season workshops during March 2001 to receive input from interested hunters about zoning and hunting season preferences. We will use the long-term information about migrations, weather, populations, harvest, and hunter preferences along with this year's input from the workshops to develop a recommendation for Missouri duck season zoning for 2001-2005.

There always are considerable differences in opinion about the best zone configuration and season timing. The challenge is to balance these opinions in a recommendation to accommodate a wide range of hunting styles. As we develop a duck season and zoning recommendation, it will be important to remember that several different considerations will be involved:

1) Potential season lengths currently are 20, 30, 45, and 60 days. Although we currently are enjoying nearly unprecedented hunting opportunity and success, this could soon change with changes in prairie habitat conditions and duck population status. Thus, potential season lengths of 20-60 days must be considered when changes in boundaries or split seasons are recommended.

2) Any change in boundaries will remain in place for 5 years, 2001-2005. This requires thinking long-term about habitat conditions, duck populations, weather, etc. Recent, mild, fall and winter weather changed many of our perceptions; however, recommendations should consider long-term averages.

3) In most areas of Missouri, there is a wide range of wetland habitat types, and a diversity of hunting preferences tends to correspond to the diversity of habitat conditions. Other factors, however, also are important (local hunting traditions, etc.). Extreme changes in season structure to favor one group of preferences usually is at the cost of another equally legitimate view of the "best" season timing. Wholesale changes in season structure may not benefit the range of hunting styles in a region.

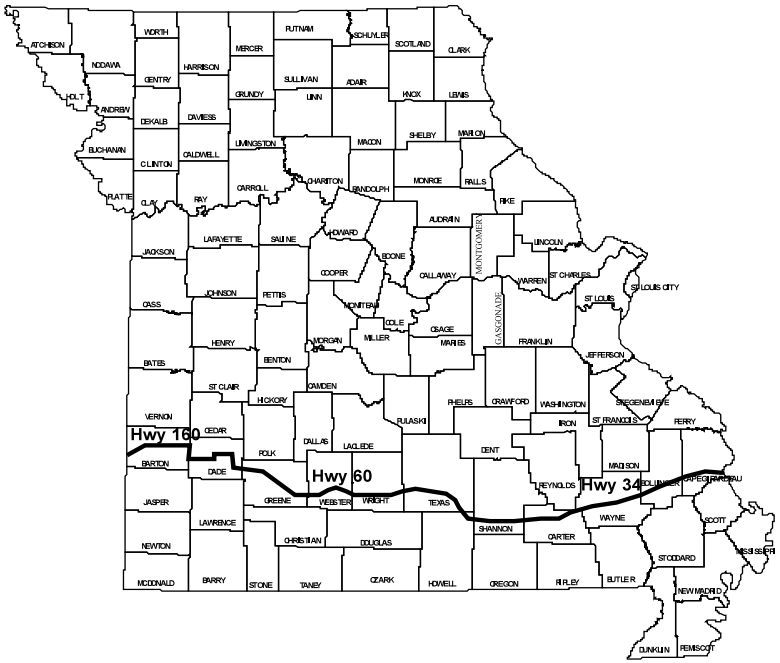
4) Higher harvest and hunter success is one measure of an effective zone configuration. Accommodating the majority of hunters' views about local duck season timing is another. Providing seasons that account for a wide range of preferences is not necessarily the same as ensuring that the majority view is satisfied.

5) Mallards are preferred by most Missouri duck hunters and usually account for >50% of the duck harvest; however, it is important to remember that mallards account for only about 15% of the fall flight. Much of the increases in recent years' duck populations have been due to record numbers of species like gadwalls, shovelers, and blue-winged and green-winged teal. Seasons timed primarily for mallards will not provide much additional opportunity for these abundant species. Undoubtedly, we will continue to provide seasons primarily for mallards; however, opportunity for other species also needs to be incorporated into Missouri seasons?

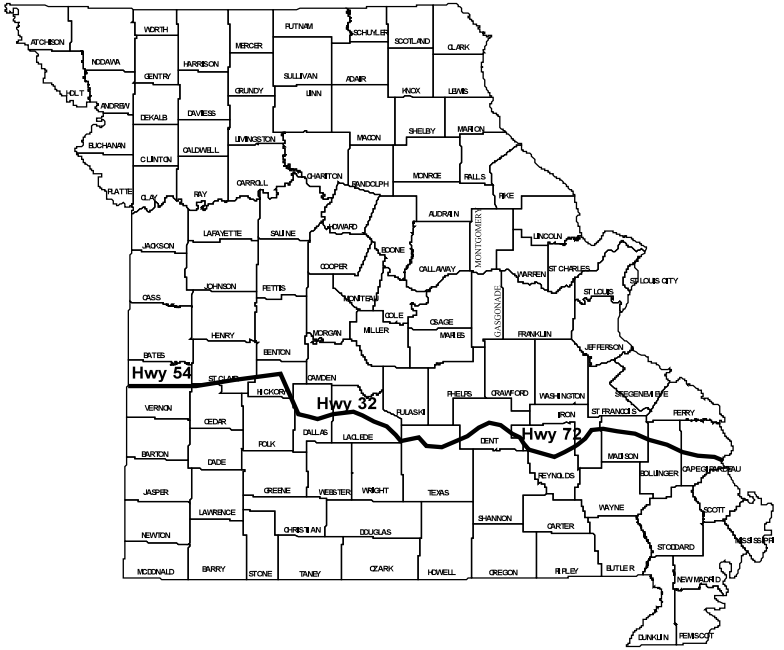
6) Although not affected by the duck zone criteria, Canada goose seasons within these zones and other Canada goose zones should be considered during this review. In general, hunters' preferences for goose seasons are more clear ("later") than for ducks; however, biological impacts of Canada goose harvest often will over-ride these preferences. Goose harvest management considerations also should be integrated into the duck zone recommendation to the degree possible.

Should duck zones change for 2001-2005? That will depend on hunters' input during the workshops. If most hunters from a particular region prefer a different zoning structure for their area, changes are likely. If there is no overwhelming support for a change or if there is great disparity among suggestions, we will have to consider the zoning structure that best accommodates the broadest range of hunting preferences.

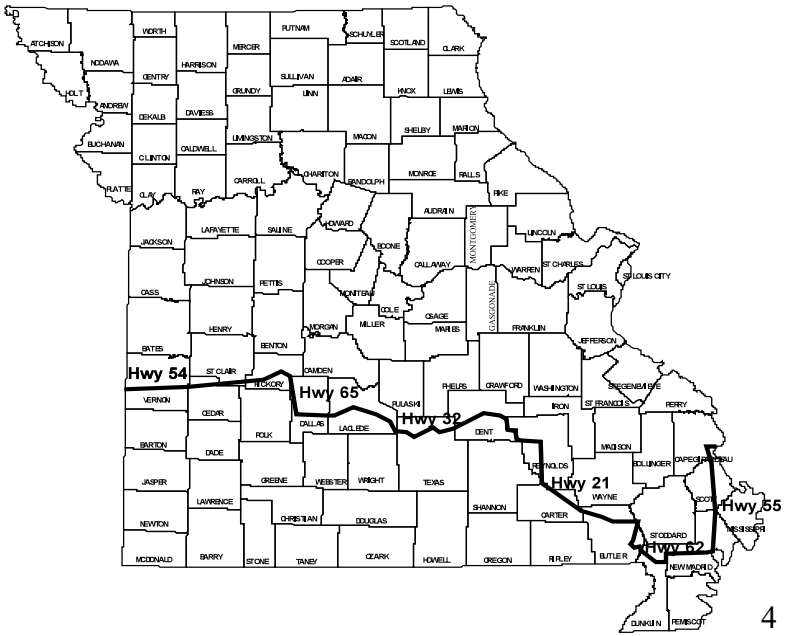
Figure 1. Zone and split season **1977-79**



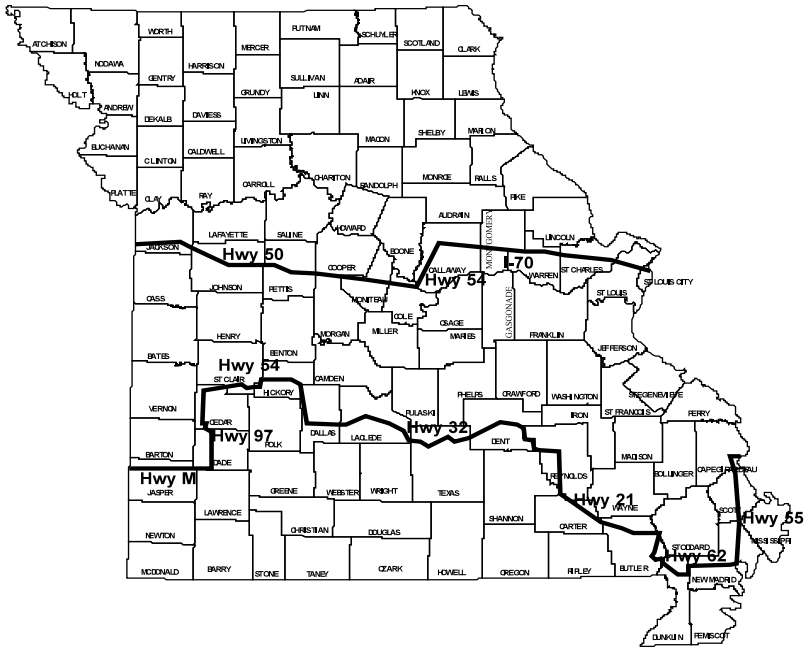
1980-85



1986-90



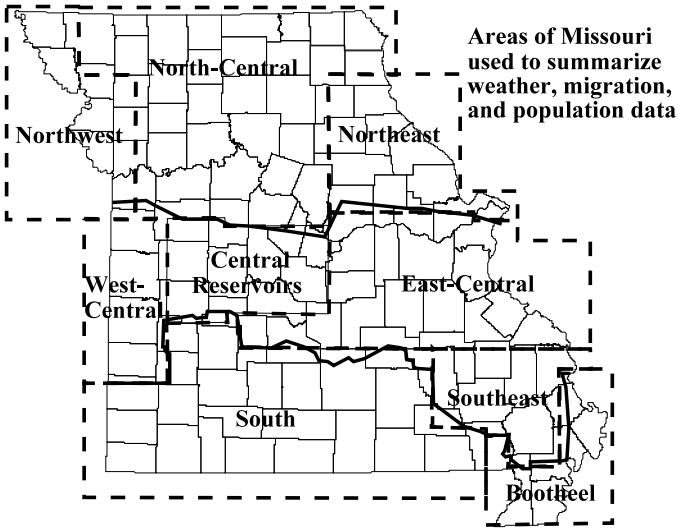
1991-2000



Duck Season Data for Missouri

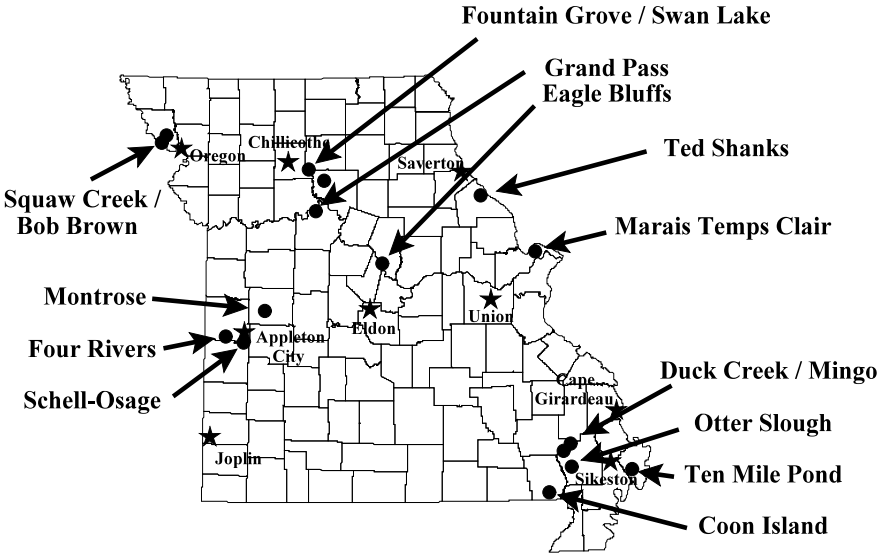
Compiled by Dale D. Humburg, Donna Brunet, and David A. Graber

Considerable information is utilized each year when duck season dates are recommended for Missouri. On the following pages (8-44) are 3 groups of long-term waterfowl population, weather, harvest, and hunter opinion data.

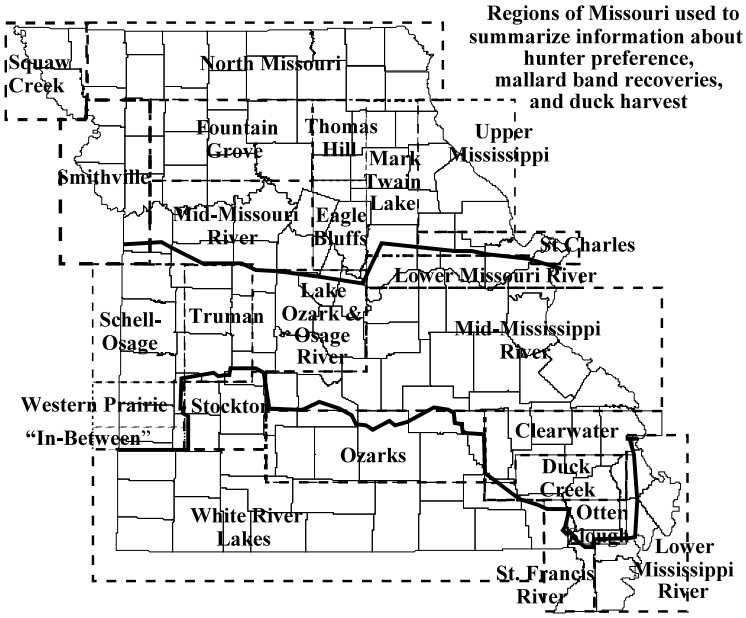


Pages 8-16 include long-term information about weather, migrations, and populations among 9 primary portions of Missouri. **Weather** data are from a selected weather reporting station corresponding to 9 primary areas of Missouri. The average low temperature and mean monthly precipitation (1961-90) reflect changes in hunting conditions during September to January. **Migrations** of ducks have been reported on Missouri Department of Conservation wetland areas since 1948. Information about early-migrant dabbling ducks (teal, wigeon, pintails, etc.) and mallards both are included to reflect differences in migration timing among these species. The percent of all migrations that occurred per week are reported. **Population** data also are from Department areas and are reported as the percent of the fall/winter duck use that occurred by week. These data, for both mallards and early-migrant dabblers, are the result of at least biweekly surveys conducted on each area since 1970. For some areas that have been acquired or developed more recently (e.g. Otter Slough CA or Ten Mile Pond CA), the run of migration or population data may be less than the 30 years usually available. In other instances (e.g. South Missouri), no managed state or federal wetland exists in the region; here, the most proximate and appropriate site is used (e.g. Montrose CA was used to reflect populations and migrations for the South Missouri area).

Survey locations for migration and population data (circles) and weather stations (stars)



Pages 17-40 include more specific data for 25 regions of Missouri concerning: a) hunter attitudes about their preferred week to hunt, b) mallard band recovery rates, and c) harvest levels for groups of years with similar zone/split season configurations. **Hunter preference** data are from post-season surveys conducted annually to determine hunting activity and harvest. Each year, up to 10% of Missouri's waterfowl hunters are surveyed. For duck season preference, hunters were asked after the 1997-99 seasons to indicate the week they most preferred to hunt ducks for the county they hunted most. **Mallard band recovery** data provide a primary basis for information on the distribution of mallard harvest by location and date. Mallards are used because of their importance to Missouri hunters, annually accounting for 50%-70% of the statewide harvest. These data are summarized by 10-day period.



Only mallards banded during the breeding season and bands recovered in the state of Missouri are used. Harvest of mallards is indexed by the numbers of band recoveries per day of hunting by 10-day period for 2 groups of years: 1) 1977-90, the period of 2 zones and some with split seasons and 2) 1991-99, the period with 3 zones and no split seasons. **Harvest** information is from the U.S. Fish and Wildlife Service's post-season harvest survey. These data are summarized by groups of years with similar season dates and zone/split configurations.

Pages 41-44 summarize band recoveries from the 9 primary areas of Missouri that are separated by the regions where mallards were banded. The percentages presented provide a general idea of the geographic distribution of band recoveries for mallards banded during the breeding season in various parts of the breeding grounds. Because banding effort (total bands and duration of banding in each region) and the size of the breeding population varies in each region, percentages from different banding regions should not be compared. Only comparisons across recovery regions in Missouri for a particular banding region should be compared.